

I. Yoshida Does Not Disclose or Render Obvious the Subject Matter Recited in Independent Claim 1

For example, Yoshida does not disclose or render obvious:

wherein the bonding layer is formed by use of a bonding material including oxide fibers which satisfy the following relational expression (1),

$$1.0 \leq L \times (W / D) / 100 \leq 7.3 \quad (1)$$

in which L is an average length (μm) of the oxide fibers in a longitudinal direction, D is specific gravity (g/cm^3) of the oxide fibers, and W is mass percentage of content (% by mass) of the oxide fibers in the entire bonding material,

wherein the average length L in the longitudinal direction of the oxide fibers is set in a range from 10 to 100 μm , and

W is set in a range from 10% to 50% by mass.

Applicants traversed the rejections of claim 1 in the January 15, 2009 Amendment.

Applicants continue to traverse the rejection of claim 1, as discussed below.

II. The Office Action Mischaracterizes Applicants' Arguments as "Admission"

The Office Action asserts that Applicants admitted that Yoshida anticipates the claims. In particular, the Office Action asserts that "Applicant's Paper filed 15 January 2009 where Applicant admits that Yoshida ('922) anticipates the claims with $L \times (W / D) 100$ being less than 30 and greater than 0.0625 which clearly encompasses the above claimed range." (See the Office Action at page 4, lines 1-3). The Office Action also asserts that "Applicant's admission (p. 5, para. 9 to p. 6, para. 1 of Applicant's Paper filed 15 January 2009), thus, Yoshida ('922) anticipates Applicant's claims because Yoshida ('922) teaches the entire range per equation (1) of claim #1 is noted." (See the Office Action at page 4, lines 14-16). These assertions mischaracterize Applicants' arguments in the January 15 Amendment.

In particular, the paragraph bridging pages 5 and 6 of the January 15 Amendment only stated that Yoshida discloses a very general and broad range of $0.0625 < L \times (W / D) / 100 < 30$. Applicants continued, in the subsequent paragraphs of the January 15 Amendment, that such a very general and broad range does not disclose the specific narrow range of $1.0 \leq L \times (W / D) / 100 \leq 7.3$ recited in claim 1. Pointing out that Yoshida discloses a very general and broad range is not an admission that Yoshida discloses the specific narrow range recited in claim 1.

As discussed above, the January 15 Amendment continued and completed the argument, in the subsequent paragraphs, that Yoshida's very general and broad range does not disclose the narrow specific range recited in claim 1. For example, paragraph 2 on page 6 of the January 15 Amendment explained that Yoshida does not disclose the criticality of the specific range recited in claim 1. Paragraphs 3 and 4 on page 6 and paragraph 2 on page 7 of the January 15 Amendment discussed the criticality of the specific range recited in claim 1 as supported in the specification of the present application. Paragraph 3 on page 7 of the January 15 Amendment concluded that Yoshida does not disclose or render obvious the subject matter recited in claim 1 because Yoshida fails to recognize the criticality of the specific range recited in claim 1.

In view of the above, the arguments in the January 15 Amendment did not admit that Yoshida's very general and broad range discloses the narrow specific range recited in claim 1. The "admission" asserted in the Office Action mischaracterizes the arguments in the January 15 Amendment.

III. Applicants' Arguments Were Based On Well-established Law

Applicants' arguments in the January 15 Amendment were based on well-established law that a broad range disclosed in a reference does not anticipate a narrow range even if the

broad range overlaps with the narrow range, if the reference fails to disclose specifics of the recited narrow range, as discussed below.

MPEP §2131.03(II) states that, when a claimed narrow range falls within a broad range disclosed in a reference, it may be reasonable to conclude that the narrow range is not disclosed with sufficient specificity to constitute anticipation of the claims. The Examiner is invited to refer to *Atofina v. Great Lakes Chem. Corp*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006), which holds that a narrow range is a species of a broader range. In *Atofina*, the court reasoned that the broad range of the reference is a generic disclosure of the range and that the narrower range of the claim is a species. The court then noted that "[i]t is well established that the disclosure of a genus in the prior art is not necessarily a disclosure of every species that is a member of that genus," citing *In re Baird*, 16 F3d 380, 382, 29 USPQ2d 1550 (Fed. Cir. 1994). The question is whether the species encompassed within the genus is disclosed.

In the present application, the Office Action fails to show that Yoshida discloses the specifics associated with the specific narrow range recited in claim 1. The rejection does not address how the "species" is disclosed. Thus, under MPEP §2131.03(II), the Office Action fails to establish the basis for "obviousness" against claim 1. In addition, as argued in the January 15 Amendment, the specification of the present application discloses the "criticality" of the narrow specific range recited in claim 1. Yoshida does not recognize such criticality. Thus, Yoshida does not disclose or render obvious the subject matter recited in claim 1.

IV. The Office Action's Statements Regarding Applicants' Discussion of "Criticality" Are Unreasonable

The Office Action appears to impose unreasonable requirements for Applicants to rebut an obviousness rejection. In particular, the Office Action asserts "Applicant does not assert or provide any evidence that Yoshida's ('922) above value must be greater than 7.3 or

less than 1.0. Whether or not portions of the range may or may not provide better performance does not make Applicant's invention patentable over a product already known in the prior art.)" (See the Office Action at page 4, lines 3-7). It is unreasonable for the Examiner to require Applicants to provide evidence that Yoshida must have a range outside the specific range recited in claim 1.

In particular, MPEP §2144.05(III) states that, to rebut a *prima facie* case of obviousness based on overlapping ranges, Applicants are required only to show "criticality" of the claimed range. Under the guidelines provided in MPEP, the requirements imposed by the Examiner are unreasonable.

Also, the Office Action unreasonably asserts that Applicants failed to show "criticality." In particular, the Office Action asserts that "Applicant does not set forth any unexpected results of its' composition. Furthermore, there is not anything unexpected about different compositions having different properties since no two products will have identical properties unless the products are identical." (See the Office Action at page 5, lines 6-9). These assertions are unreasonable for at least the following two reasons.

First, Applicants did show criticality with unexpected results in the January 15 Amendment at, for example, paragraph 3 on page 6 and the subsequent paragraph that bridges pages 6 and 7, as well as the first full paragraph on page 7. In particular, these paragraphs pointed out the excellent results from the specific range recited in claim 1, as well as the poor results from the range that is outside the recited specific range but still within the very general and broad range disclosed in Yoshida. One of ordinary skill, who would have been expected to use the general and broad range disclosed in Yoshida, would not have expected the excellent results from the specific narrow range recited in claim 1. Thus, as discussed in the January 15 Amendment, as well as in the specification of the present application, the narrow specific range recited in claim 1 generates unexpected results.

Second, as quoted above, the Office Action asserts that there is nothing unexpected about different compositions having different properties. This assertion is unreasonable. One of ordinary skill understands that an inventive composition having different properties could generate unexpected results. Such inventive composition is patentable subject matter.

V. The Rejections Should Be Withdrawn

The rejections of the claims are essentially the same as rejections in the October 16, 2008 Office Action, except that the Examiner added the asserted Applicants' "admission." As discussed above, the asserted "admission" is a mischaracterization of Applicants' arguments in the January 15 Amendment. Thus, such added "admission" assertion does not establish a *prima facie* case of rejection.

In any events, although Yoshida discloses a range that overlaps the recited range, Yoshida fails to disclose specifics related to the recited range. Yoshida's range is very general and broad, and does not recognize the criticality associated with the recited narrow specific range. Thus, Yoshida does not disclose or render obvious the subject matter recited in claim 1 and claims 3-8 depending therefrom. Accordingly, withdrawal of the rejection of claims 1 and 3-8 under 35 U.S.C. §102(b) and §103(a) is respectfully requested.

VI. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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